

Amendments to the Specification:

On page 1, below the title, insert the following:

CROSS-REFERENCE TO RELATED APPLICATIONS

This application claims the benefit of German Application No. 10237270.5, filed August 14, 2002, and PCT Application No. PCT/EP03/08784, filed August 7, 2003.

BACKGROUND OF THE INVENTION

1. Field of the Invention

Please amend the paragraph beginning on page 1, at line 3, as shown below:

The invention ~~relates to~~ pertains to the use of silane-crosslinkable coating formulations having good curing properties, which produce scratch resistant coatings.

2. Background Art

Please amend the paragraph beginning on page 1, at line 18, as shown below:

The great majority of the present commercial coatings for OEM and refinish are systems composed of ~~[[-]] in some cases protected~~ [[-]] isocyanate oligomers, in some cases the isocyanate groups of which are blocked, and hydroxy-functional polymers. These systems, however, still have a large number of various disadvantages.

On page 7, before the second full paragraph which begins on line 27, please insert the following:

SUMMARY OF THE INVENTION

Please amend the paragraph beginning on page 7, at line 27, as shown below:

It was therefore an object of the invention to provide a hard coating with good scratch resistance, which can be produced from alkoxy silane-functional prepolymers and which does not have restrictions corresponding to those of the prior art. These and other objects are achieved by coating a substrate with crosslinkable prepolymer(s) bearing 2 or 3 reactive silyl groups -OR, bonded to the prepolymer through an intervening methylene group via -O-, -S-, or a single urethane linkage. Coating compositions employing the prepolymers can be used in low-solvent or solvent-free form, and cure readily at low temperatures to form coatings of high hardness values.

Before the last full paragraph on page 7 which begins on line 33, insert the following:

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Please amend the paragraphs beginning on page 8, at line 39, as shown below:

The invention is based ~~for one~~ on the following, surprising ~~discovery~~ discoveries. ~~thus~~ Firstly, it has been found that prepolymers (A) having alkoxy silyl groups of the general formula (1) which are attached via a methyl spacer to a heteroatom can have extremely high reactivities toward moisture. Surprisingly, however, these high reactivities occur only when acidic or basic compounds - such as, for example, aminosilanes of the general formula (5) ~~[[-]]~~ are present, even if present only in traces. Although an extremely high reactivity of the prepolymers (A) is entirely advantageous in the context of the curing of the prepolymer-containing coatings, the handleability of these highly reactive mixtures is extremely

problematic. In the absence of any acids or bases, however, the prepolymers (A) have virtually no reactivity and can therefore be handled and stored without problems. This also allows effective modulability and/or controllability of the reactivity of the prepolymers (A) by means of the addition of suitable - e.g., weakly basic or acidic - catalysts.

~~This invention is based for the other on a further~~ A second, likewise surprising discovery~~[[:]]~~ thus is that solvent-free or low solvent coating formulations (B) can be produced with mixtures of prepolymers (A) having a very high density of alkoxyethyl groups of the general formula (1) which are attached via a methyl spacer to a heteroatom, ~~even with~~ while providing low viscosities, if the heteroatom is not a nitrogen atom that is part of a urea group. As a result of the low viscosity, these prepolymers (A) can be used effectively in low-solvent or even in solvent-free coating systems. Coating formulations (B) of this kind, with mixtures of prepolymers (A) having a high density of alkoxyethyl groups of the general formula (1), in the course of their curing, form networks having a high network density, thereby resulting in very hard materials which are highly suitable for scratch-resistant coatings.

Please amend the paragraph beginning on page 17, at line 24, as shown below:

Besides the prepolymers (A) and, where appropriate, one or more reactive diluents (B) it is also possible for the coating formulations (B) to include further binders (D) without alkoxyethyl functions of the general formula (6). Suitable binders (D) include all of the binders known from paint preparation, examples being binders based on polyurethanes, polyacrylates or ~~melamine~~ melamine resins and also binders which possess alkoxyethyl groups that are not of the general formula (6).

Please amend the paragraph beginning on page 20, at line 19, as shown below:

Preparation of the prepolymers (A) from a polyol and a silane of the general formula (9):

A 250 ml reaction vessel with stirring, cooling and heating facilities was charged with 34.63 g (133.2 mmol) of a ~~polypropylene~~ polyoxyethylated glycerol having an average molar mass

of 260 g/mol, which was dewatered by heating at 100°C under a membrane pump vacuum for one hour. Subsequently it was cooled to about 60°C and at this temperature 0.025 g of dibutyltin dilaurate 64.49 g (400 mmol) of isocyanatomethyl trimethoxysilane were added under nitrogen. The temperature during this addition ought not to rise above 85°C. After the end of the addition stirring was continued at a temperature of 60°C for a further 60 minutes. In the course of this procedure only the isocyanate function of the isocyanatomethyl trimethoxysilane reacted with the OH groups of the polyol. The reaction of the OH functions of the polyol with the trimethoxysilyl groups of the isocyanatomethyl trimethoxysilane, although conceivable in principle, could not be found within the bounds of measurement accuracy (NMR, HPLC-MS).

Please amend the paragraph beginning on page 21, at line 13, as shown below:

Preparation of the prepolymers (A) from a polyol and a silane of the general formula (9):

The procedure described in Example 2 was repeated but with the addition of only 47.27 g (266.7 mmol) of isocyanatomethyltrimethoxysilane. At the stoichiometric ratio between the ~~polypropylene~~ polyoxypropylated glycerol and the isocyanatomethyltrimethoxysilane it was possible on average for only two of the three OH functions of the polyol to react with an isocyanatomethyltrimethoxysilane to form a urea unit.

Please amend the paragraph beginning on page 21, at line 35, as shown below:

Preparation of the prepolymers (A) from an OH-terminated polyurethane and a silane of the general formula (9):

A 250 ml reaction vessel with stirring, cooling and heating facilities was charged with 30.00 g (115.4 mmol) of a ~~polypropylene~~ polyoxypropylated glycerol having an average molar mass of 260 g/mol, which was dewatered by heating at 100°C under a membrane pump vacuum for one hour. Subsequently it was cooled to about 60°C and at this temperature 0.03 g of dibutyltin dilaurate and 7.30 g (43.4 mmol) of hexamethylene diisocyanate (HDI) were added under nitrogen. The temperature during this addition ought not to rise above 80°C. After the end of the addition stirring was continued at a temperature of 60°C for a further 60 minutes.